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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,808	08/28/2001	Muneki Nakao	35.C15838	2948

5514 7590 03/28/2005

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EXAMINER

PENDERGRASS, KYLE M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,808

Applicant(s)

NAKAO ET AL.

Examiner

Kyle M Pendergrass

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/01, 04/02, 12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 7 & 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, on page 189, lines 5-6, the claim language reads: "to a power source rising of said external intelligent terminal" (emphasis added). The language structure makes the claim unclear. Examiner believes Applicant means to write that the power source of the terminal rises, not that the rising is of the terminal. Correction is required.

Regarding claim 7, on page 189, lines 19-22, the claim language is difficult to follow. Examiner suggest Applicant rewrite the claim to reflect that the connection state *in a wireless connection* does not require an initial connection procedure in order that the state is changed. Please consider these changes for clearer claim language.

Claim 11 recites the limitation "the communication apparatus" in page 191 lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the intelligent terminal " in page 191 line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the communication apparatus" in page 192 line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the intelligent terminal" in page 192 line 24. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-7 & 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Larsson et al. (US 6 463 307).

Regarding claim 1, **Larsson et al.** teach a communication apparatus (*fig 1, Mobile Terminal (MT) 102-112*), comprising:

wireless connection means (*column 1:lines 7-11, the system is wireless, therefore both the mobile terminals 102-112 and the base station 100 have wireless connection means*) for

wirelessly connecting to an external intelligent terminal (*fig 1, base station (BS) 100*);

and change means for changing a communication state with said external intelligent terminal by said wireless connection means into a state of a low electric power consumption (*fig 4, step 412, hibernation state*) when a communication with said external intelligent terminal is not performed for a predetermined length of time or more (*fig 4 & column 8:lines 29-35, step 406 determines when a certain time period has passed since the last data packet from the base station. This*

occurs in order to change the state to a hibernation state, which inherently requires a change means).

Regarding claim 2, **Larsson et al.** teach the communication apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1, wherein said change means changes the state of said wireless connection means from the state of the low electric power consumption (*fig 4, step 412, hibernation state*) to a connection state capable of receiving a command data or an image data (*fig 4, steps 402 & 418, wake up/awake state*) between itself and said external intelligent terminal (*fig 1, base station (BS) 100*) when an image to be sent from said communication apparatus to said external intelligent terminal is available (*fig 4, steps 416-424, when in hibernation, mobile terminal determines whether it has an available packet to send to the base station. If it does, its change means changes the state from hibernation to awake state*).

Regarding claim 3, **Larsson et al.** teach the communication apparatus apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1, wherein the change by said change means is executed by requesting for a change of said state from said communication apparatus to said external intelligent terminal (*fig 4, steps 408-412 & column 8:lines 36-41, mobile terminal sends request for hibernation to base station and then later goes into hibernation per command of base station, i.e. external intelligent terminal*).

Regarding claim 4, **Larsson et al.** teach the communication apparatus apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1, wherein said wireless connection means is put into a connection state capable of transmitting and receiving a command data or an image data between itself and said external intelligent terminal in response to a power source rising of said external intelligent terminal (*fig 4, column 8:lines 54-64, mobile terminal changes state from hibernation to a state of awake, i.e. a state capable of transmitting and receiving, when base station's power rises with a packet and*

command sent from the base station to the mobile terminal. The power rises in order to send the packet, therefore the mobile terminal changes state due to the rise in power).

Regarding claim 6, **Larsson et al.** teach the communication apparatus apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1, wherein the connection in said low electric power consumption state is a state in which said external intelligent terminal can not obtain the state information of said communication apparatus (*column 7:lines 46-51, the base station, i.e. intelligent terminal, does not know the state of the mobile terminal for certain while the mobile terminal is in hibernation, i.e. power save, mode because the communication is not in progress during a certain time period*).

Regarding claim 7, **Larsson et al.** teach the communication apparatus apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1, wherein the connection in said low electric power consumption state is a state which does not require an initial connection procedure in a wireless connection in order that this state is changed to a connectable state in which the transmitting and receiving of the command data or the image data with said communication apparatus is possible (*fig 4, steps 414-434, the connection response for a change in mode does not require an initial procedure because it just wakes up immediately upon receiving indication of data transfer either to mobile terminal or from mobile terminal*).

Regarding claim 9, **Larsson et al.** teach an intelligent terminal (*fig 1, base station (BS) 100*), comprising:

wireless connection means (*column 1:lines 7-11, the system is wireless, therefore both the mobile terminals 102-112 and the base station 100 have wireless connection means*) wirelessly connected to the communication apparatus (*fig 1, mobile terminals 102-112*) capable of performing a communication through a public network (*column 1:lines 49-63*);

and change means for changing the communication state with said communication apparatus by said wireless connection means into a state of low electric power consumption (*fig 4, step 412,*

hibernation state) when a communication with said communication apparatus is not performed for a predetermined length of time or more (fig 4 & column 8:lines 29-35, step 406 determines when a certain time period has passed since the last data packet from the base station. This occurs in order to change the state to a hibernation state, which inherently requires a change means, wherein base station has change means that changes the state of the mobile terminal).

Regarding claim 10, Larsson et al. teach the intelligent terminal (fig 1, base station (BS) 100) according to claim 9, wherein said change means changes the state of said wireless connection means from said low electric power consumption (fig 4, step 412, hibernation state) to the connection state capable of transmitting and receiving the command data or the image data (fig 4, steps 402 & 418, wake up/awake state) between itself and the said communication apparatus based on the request from said communication apparatus when there is available an image data to be sent from said communication apparatus to said intelligent terminal (fig 4, steps 416-424, when in hibernation, mobile terminal determines whether it has an available packet to send to the base station. If it does, its change means changes the state from hibernation to awake state, wherein base station has change means that changes known the state of the mobile terminal).

Claim 11 recites identical features as claim 1 except claim 11 is a method claim. Thus, arguments similar to that presented above for claim 1 are equally applicable to claim 11.

Claim 12 recites identical features as claim 9 except claim 12 is a method claim. Thus, arguments similar to that presented above for claim 9 are equally applicable to claim 12.

Claim 13 recites identical features as claim 1 except claim 13 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 13

because without a computer readable medium to store a program that makes it possible for the apparatus to operate, the apparatus taught by **Larsson et al.** and cited the rejection for claim 1 could not function.

Claim 14 **recites** identical features as claim 9 except claim 14 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 9 is equally applicable to claim 14 because without a computer readable medium to store a program that makes it possible for the apparatus to operate, the apparatus taught by **Larsson et al.** and cited the rejection for claim 9 could not function.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson et al. (US 6 463 307) & Haartsen (BLUETOOTH – The universal radio interface for ad hoc, wireless connectivity, Ericsson Review No. 3, 1998).

Regarding claim 5, **Larsson et al.** teach the communication apparatus apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1, but do not teach wherein said wireless connection means performs a communication in conformity to the Bluetooth Standard.

However, **Haartsen** teaches a wireless communication between two electronic devices in the Bluetooth Standard. See the bolded paragraphs on page 110.

Accordingly, it would have been obvious to one skilled in the art at the time of the invention to have used the Bluetooth Standard wireless communication taught by **Haartsen** in the communication system comprising the communication apparatus and intelligent terminal taught by **Larsson et al.** because the teachings of **Haartsen** teach an Ericsson Company Bluetooth wireless communication

method/system that can used in the Ericsson Company wireless communication system taught by **Larsson et al.**

Regarding claim 8, **Larsson et al.** teach the communication apparatus apparatus (*fig 1, Mobile Terminal (MT) 102-112*) according to claim 1. **Larsson et al.** further teach an active mode (*fig 4, steps 416-424, awake state*) and a low power consumption mode (*fig 4, step 412, hibernation state*) but do not teach a Bluetooth Standard.

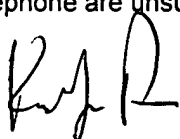
However, **Haartsen** teaches a wireless communication between two electronic devices in the Bluetooth Standard. See the bolded paragraphs on page 110. Additionally, **Haartsen** teach in the *Networking* column on pages 114-115, network connections between electric devices called piconets that establish connections from Bluetooth Standard standby mode, i.e. low power consumption mode, to wake-up mode, i.e. active mode.

Accordingly, it would have been obvious to one skilled in the art at the time of the invention to have used the Bluetooth Standard wireless communication taught by **Haartsen** in the communication system comprising the communication apparatus and intelligent terminal taught by **Larsson et al.** because the teachings of **Haartsen** teach an Ericsson Company Bluetooth wireless communication method/system that can used in the Ericsson Company wireless communication system taught by **Larsson et al.**

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle Pendergrass whose telephone number is (571) 272-7438. The examiner can normally be reached on Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440.


KING Y. POON
PRIMARY EXAMINER